

Figure 1a

000707 50758560

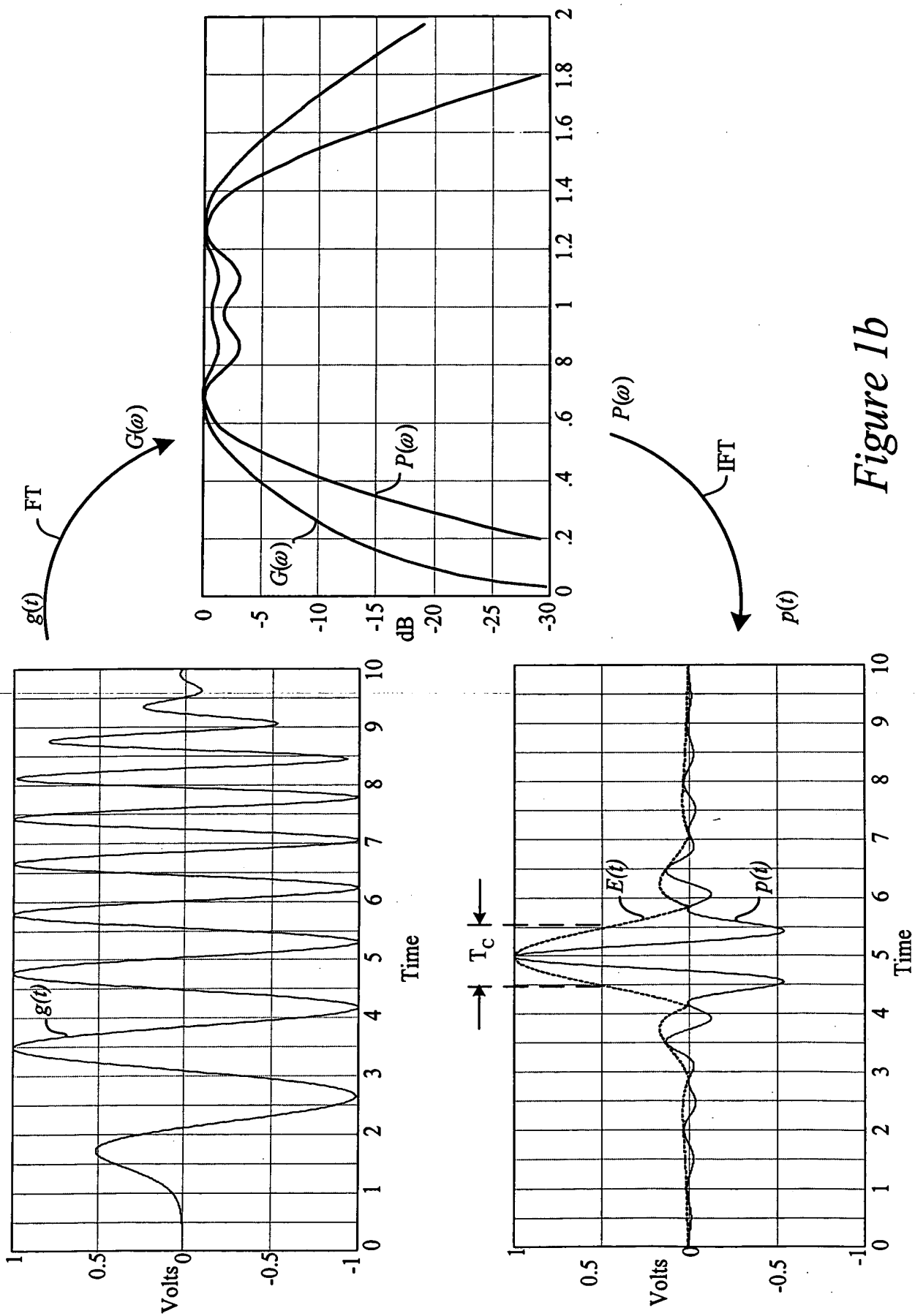


Figure 1b

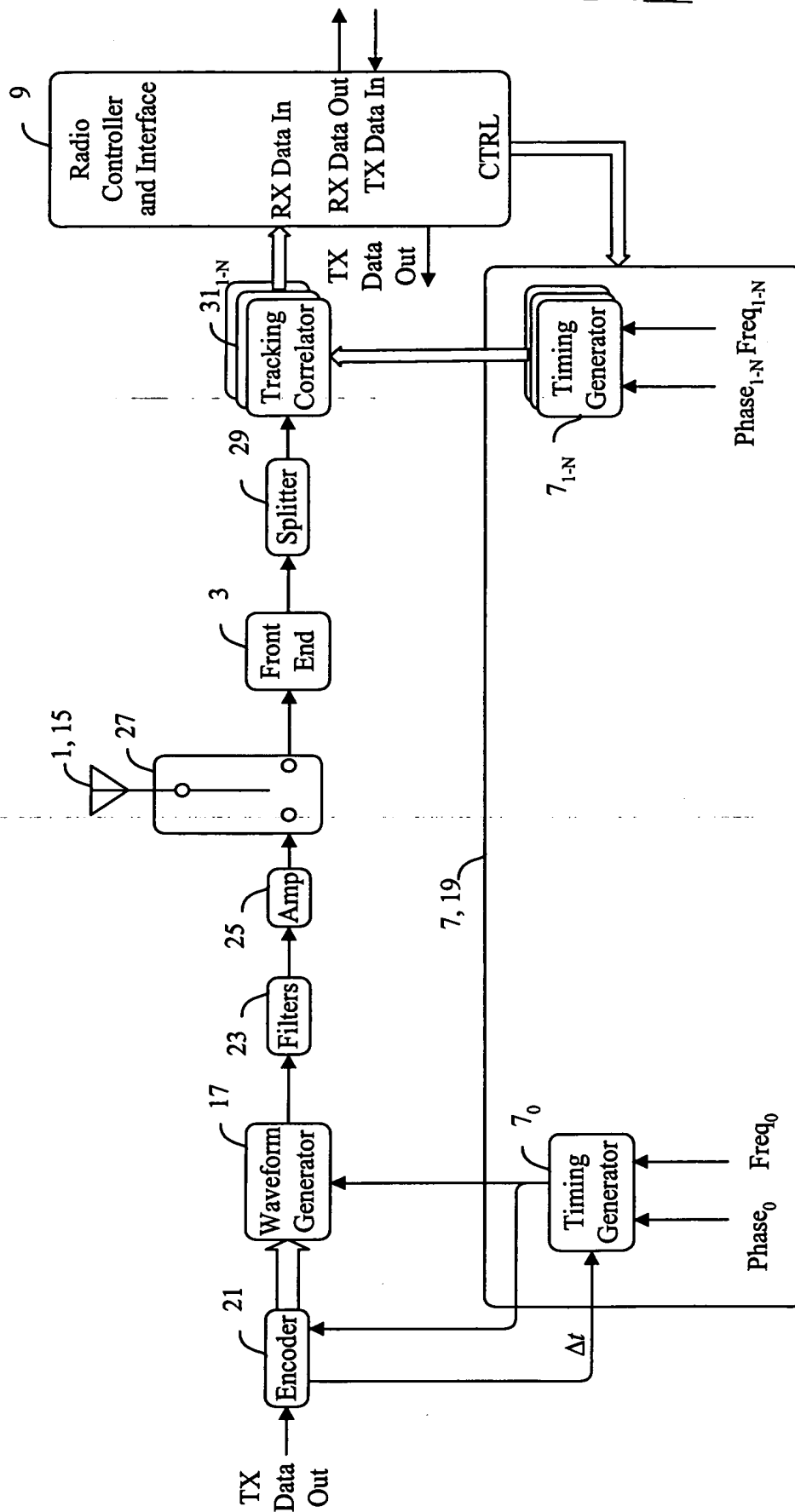


Figure 2



FIG. 4A

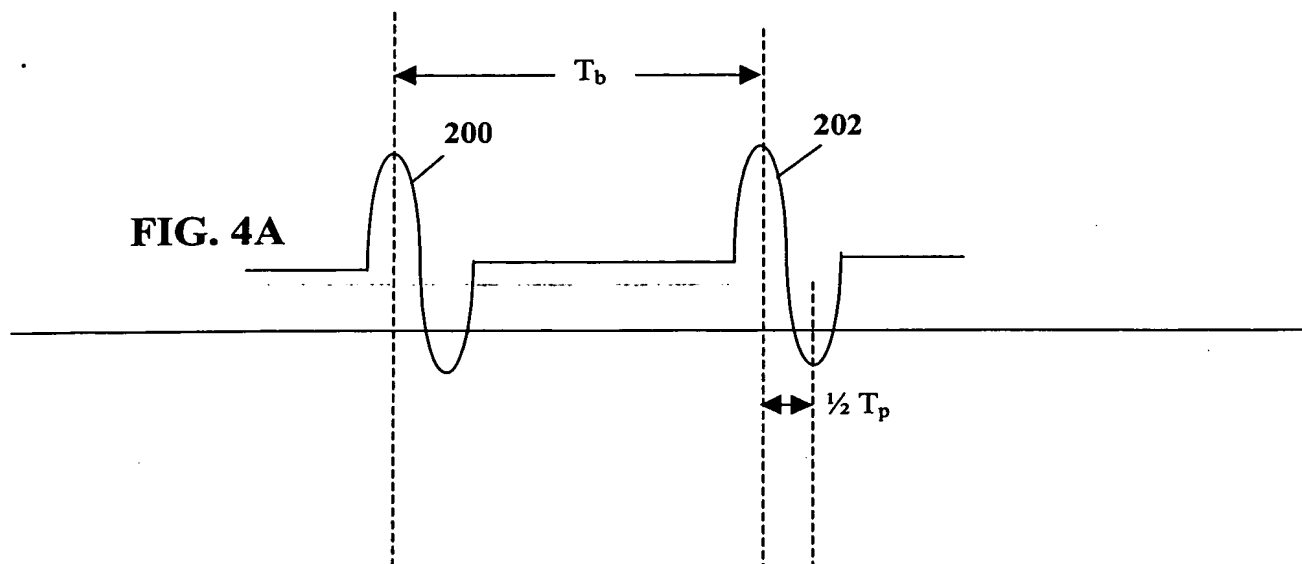


FIG. 4B

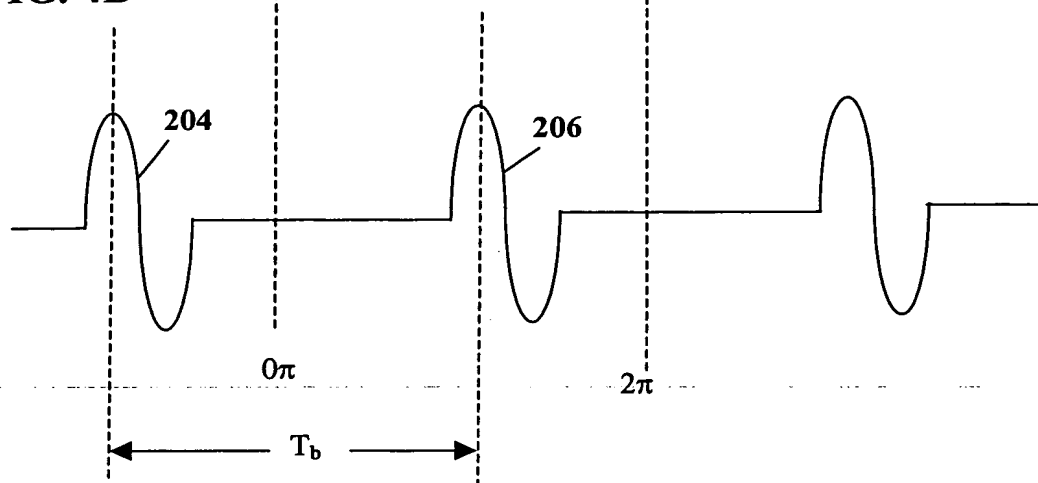
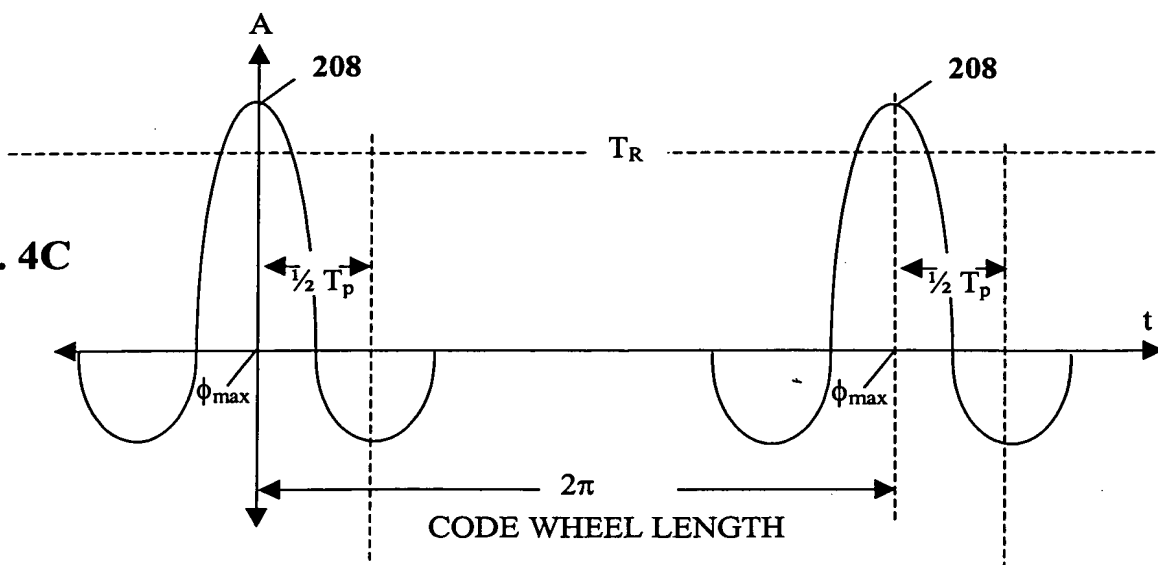


FIG. 4C



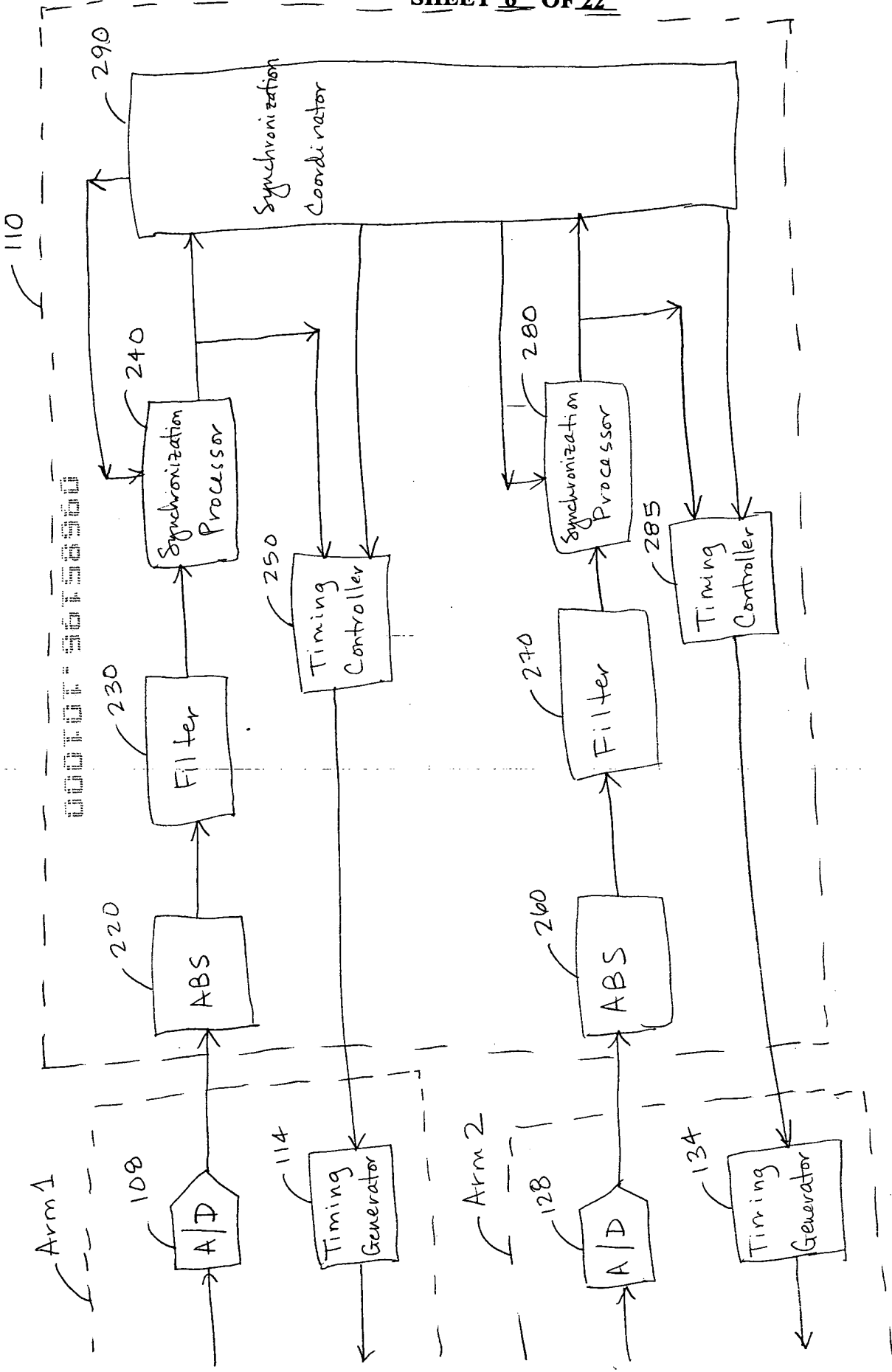


Fig 4D

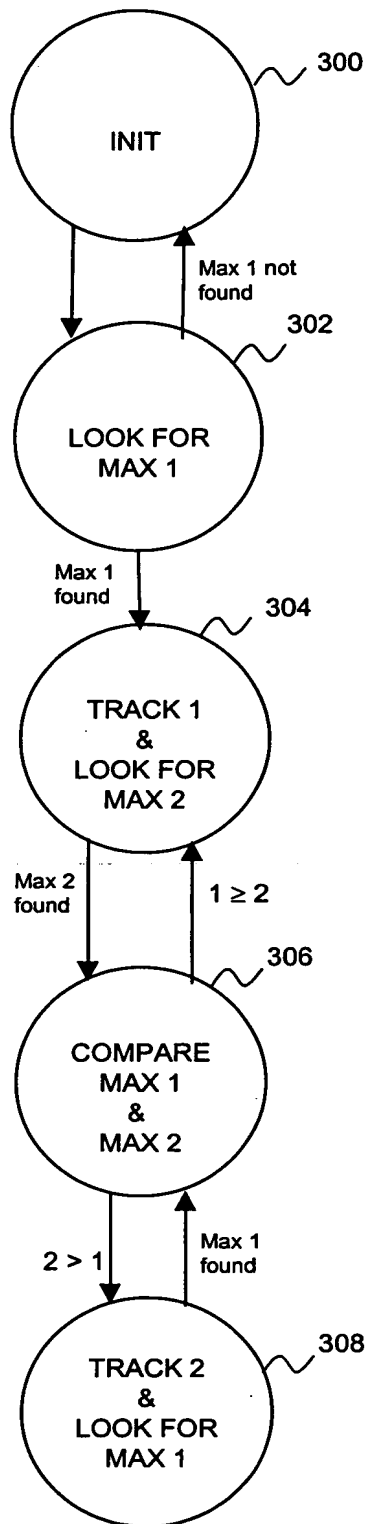


FIGURE 5

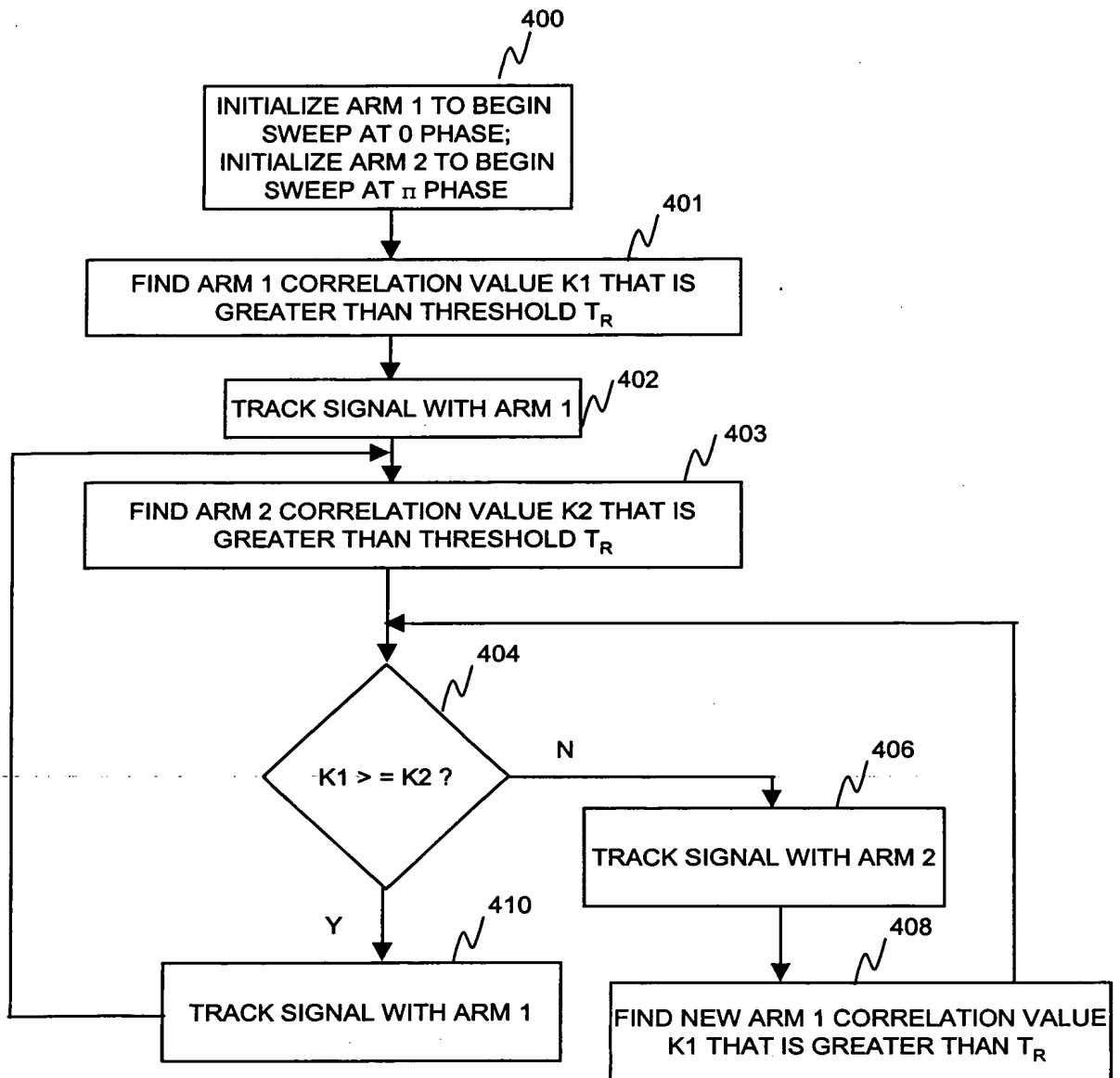
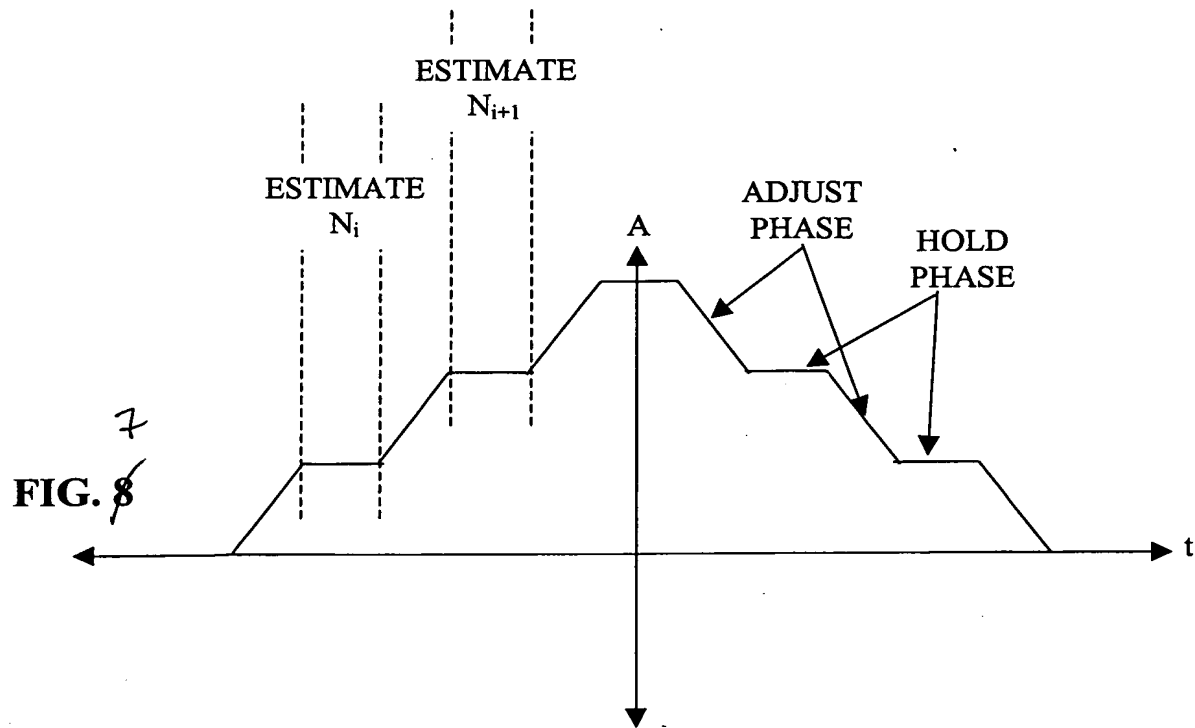
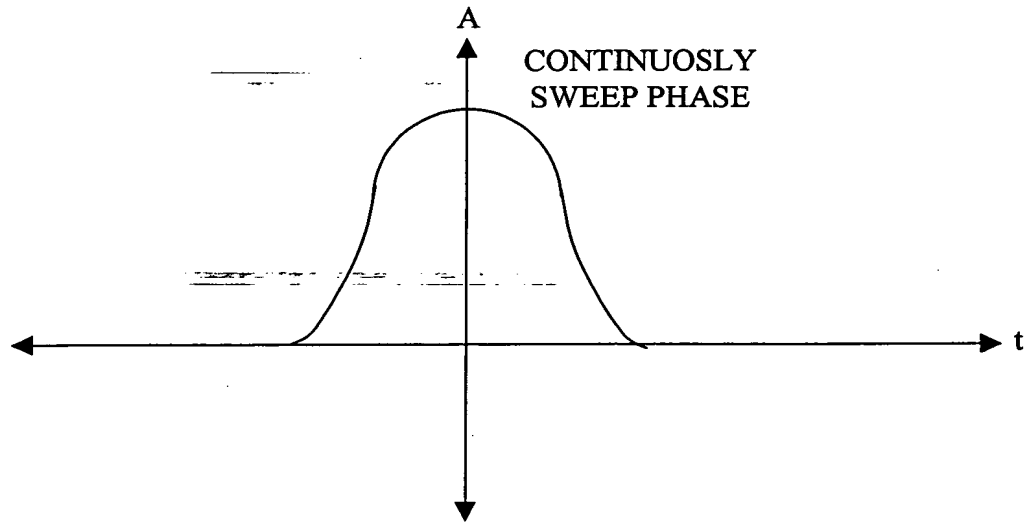


FIGURE 6



00606106 101000

FIG. 8



000001-96156560

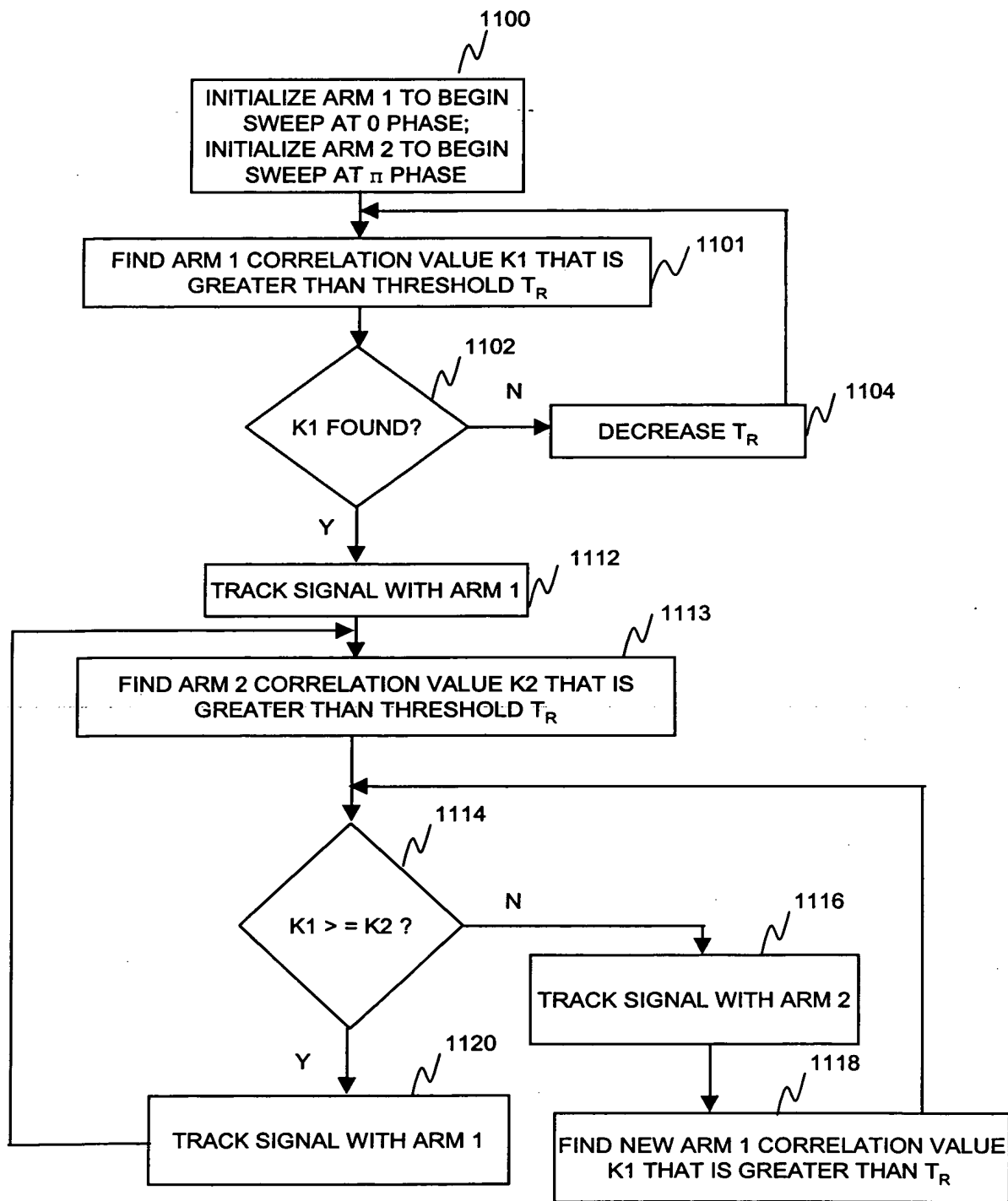


FIGURE 9

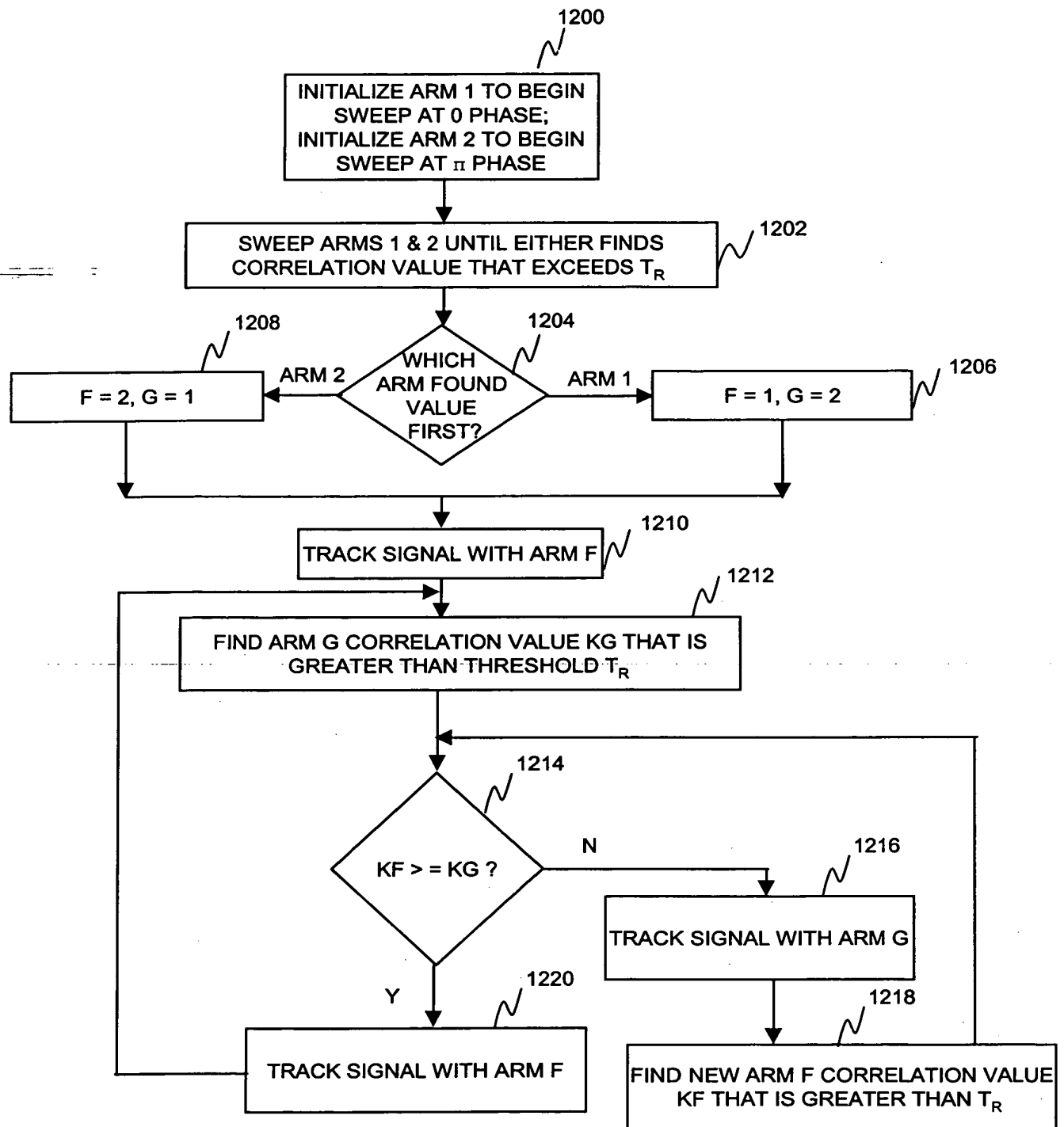


FIGURE 10

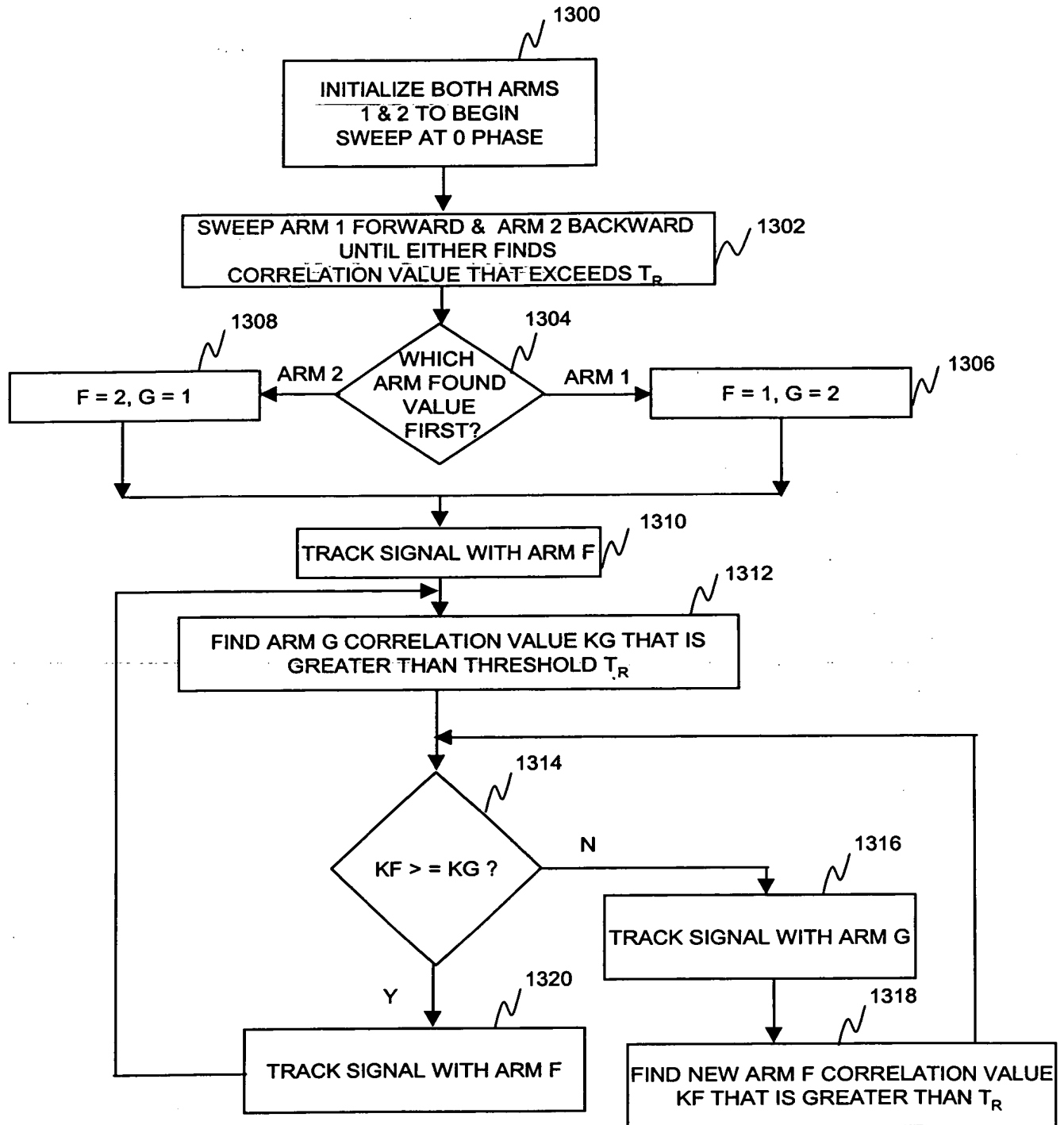


FIGURE 11

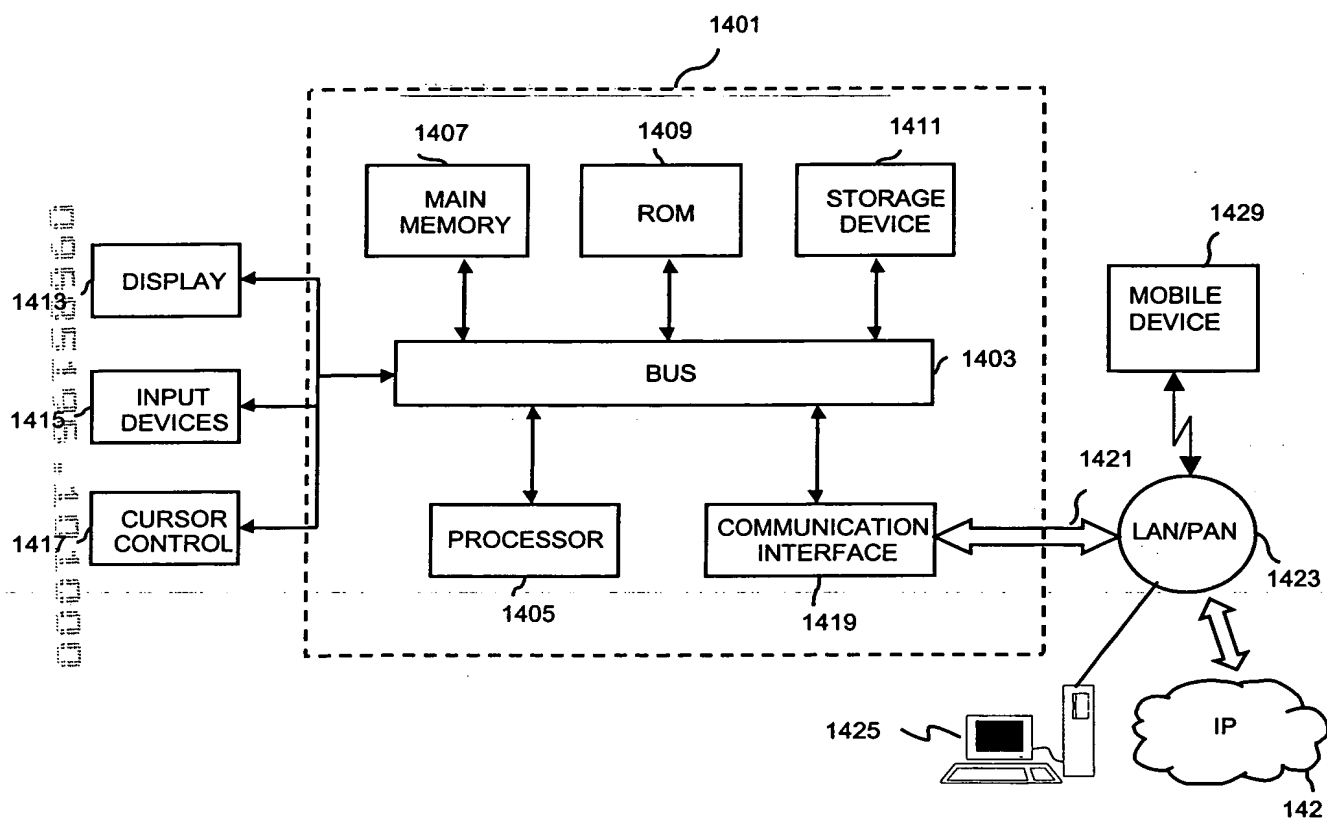


FIG. 12

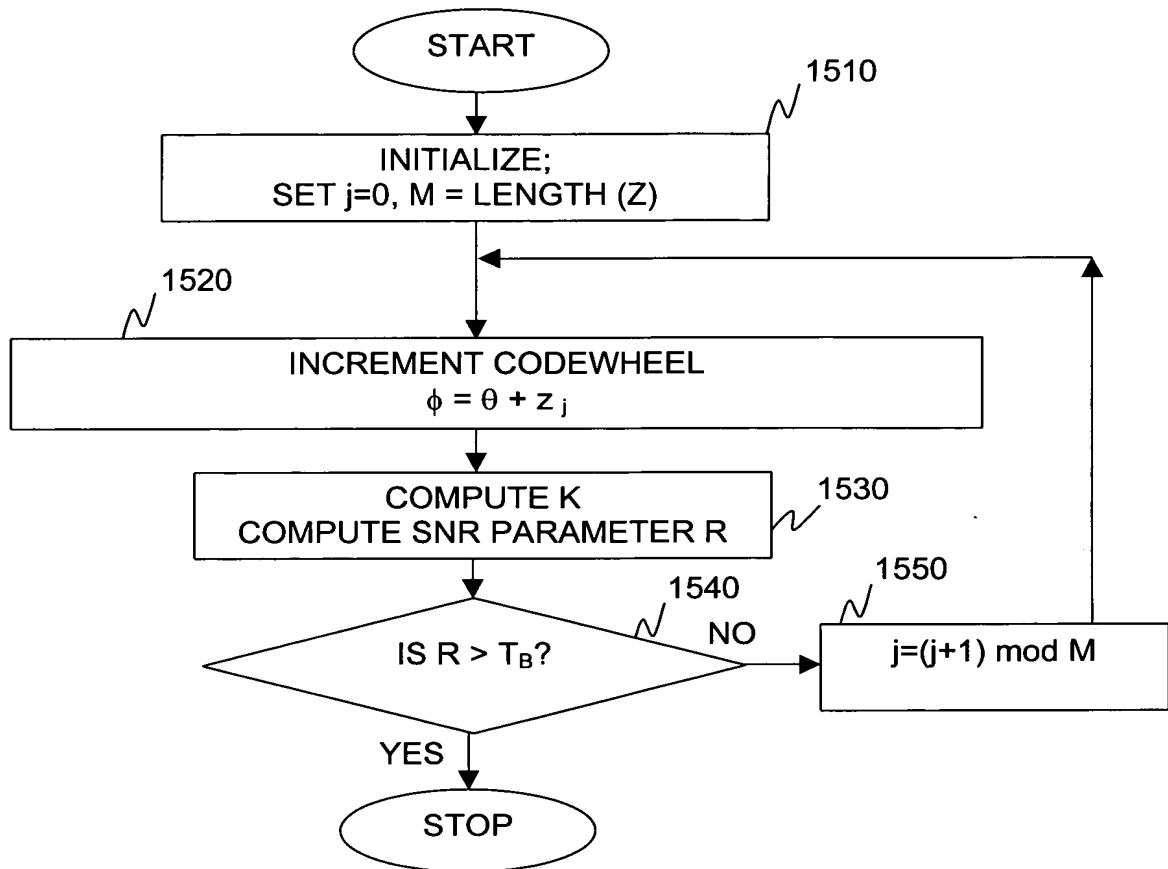


FIGURE ¹³~~14~~A

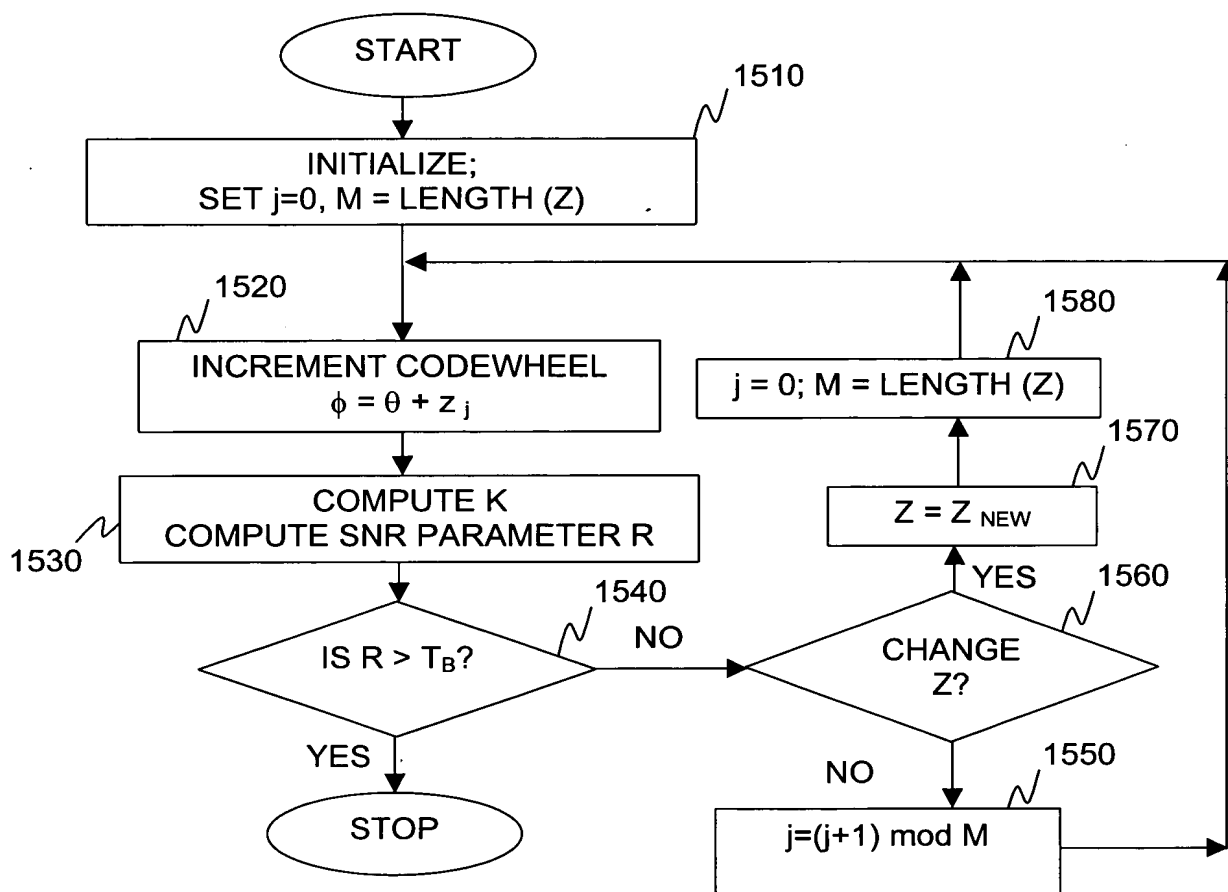
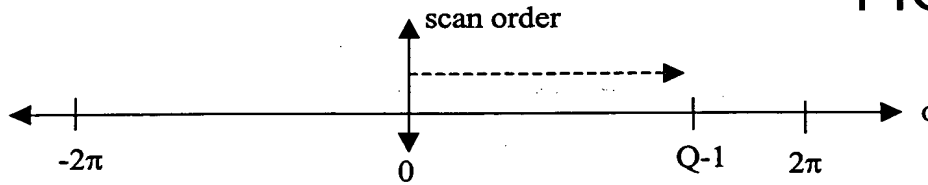


FIGURE 13
~~14~~B

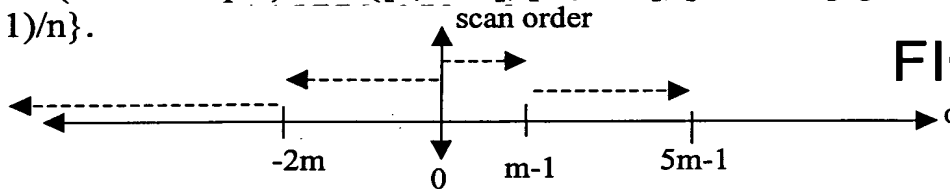
$$Z1 = \{0, n, 2n, 3n, \dots, Q-3, Q-2, Q-1\}.$$

¹⁴
FIGURE 15A



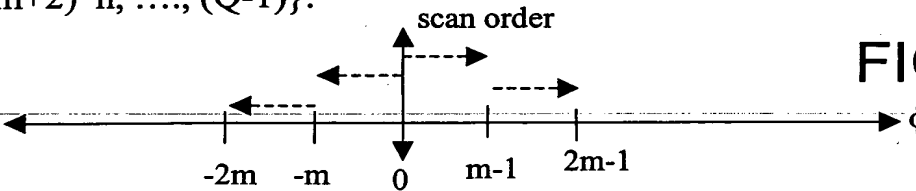
$$Z2 \text{ (first example)} = n * \{[0, m-1], [-1, -2m], [m, 5m-1], [-2m-1, -10m], \dots, (Q-1)/n\}.$$

¹⁴
FIGURE 15B



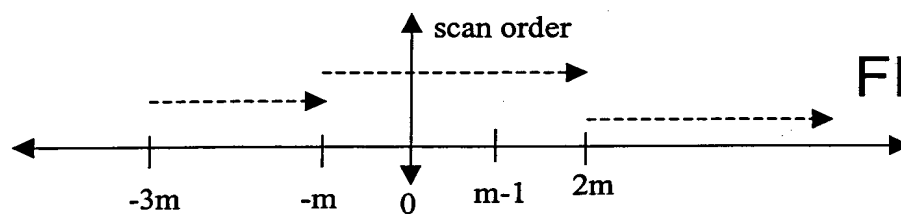
$$Z2 \text{ (second example)} = \{0, n, 2n, \dots, (m-1)*n, -n, -2n, \dots, -m*n, m*n, (m+1)*n, (m+2)*n, \dots, (Q-1)\}.$$

¹⁴
FIGURE 15C



$$Z2 \text{ (third example)} = \{-m*n, (-m+1)*n, (-m+2)*n, \dots, -n, 0, n, \dots, m*n, (m+1)*n, (m+2)*n, \dots, 2m*n, (-3m)*n, (-3m+1)*n, (-3m+2)*n, \dots, (-m-1)*n, (2m+1)*n, (2m+2)*n, \dots, (Q-1)\}.$$

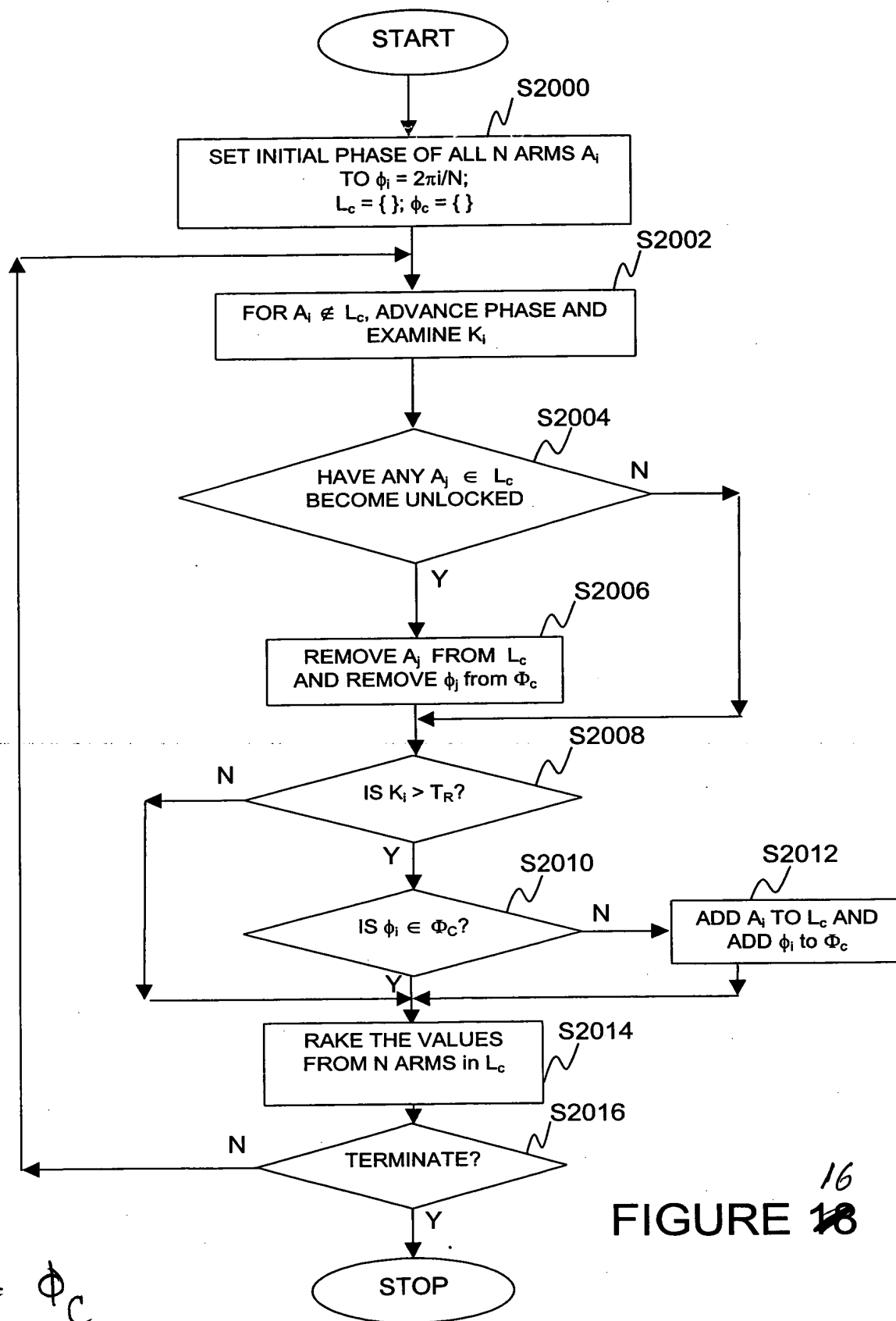
¹⁴
FIGURE 15D



where, for FIGS. ¹⁴15A, ¹⁴15B, ¹⁴15C, and ¹⁴15D:

Q = total number of codewheel increments in each codewheel spin. The maximum codewheel spin is a complete (2π) codewheel spin, but other codewheel spins are available;
n = an arbitrary local parameter that controls how fast the code wheel spins depending on the time increment step size; and
m = a number of increments less than the total number of increments.

t



16
FIGURE 16

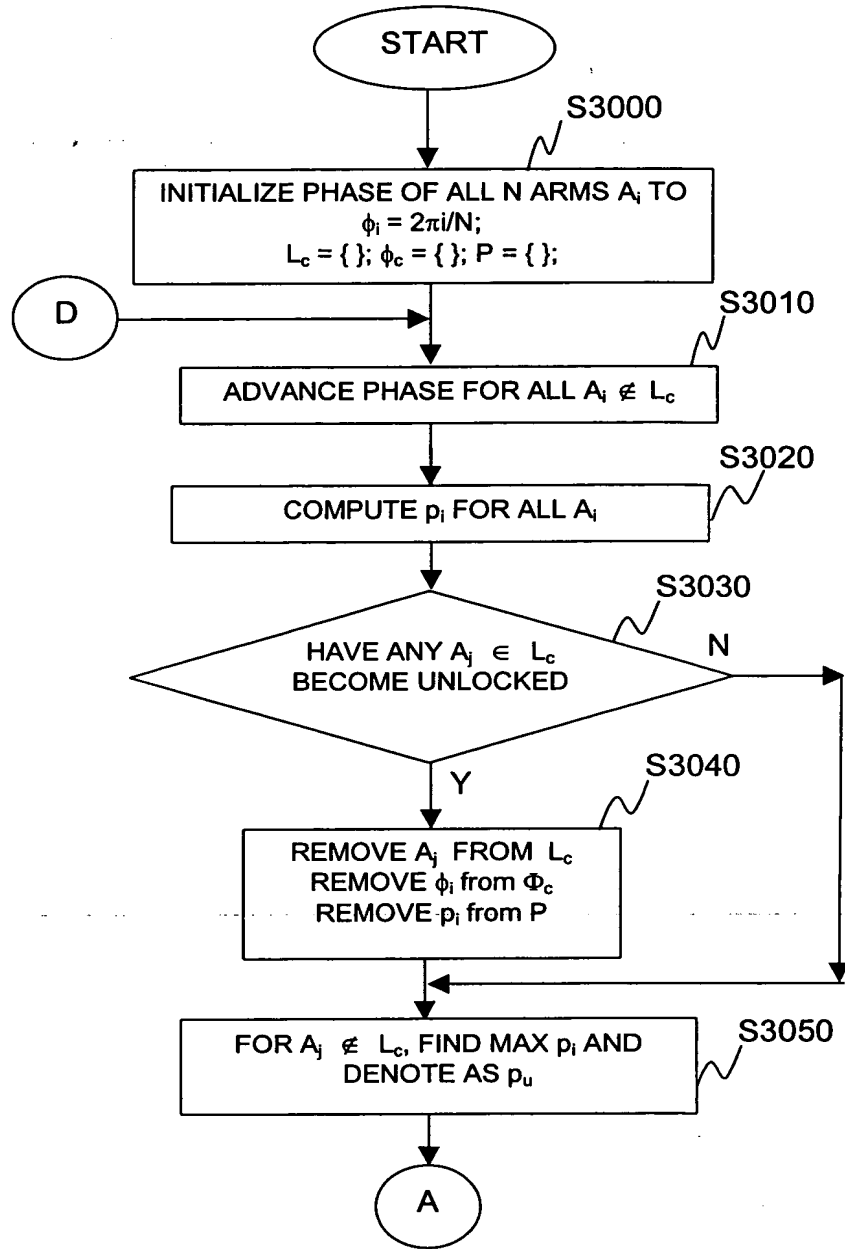


FIGURE 17

$$\Phi_c = \phi_c$$

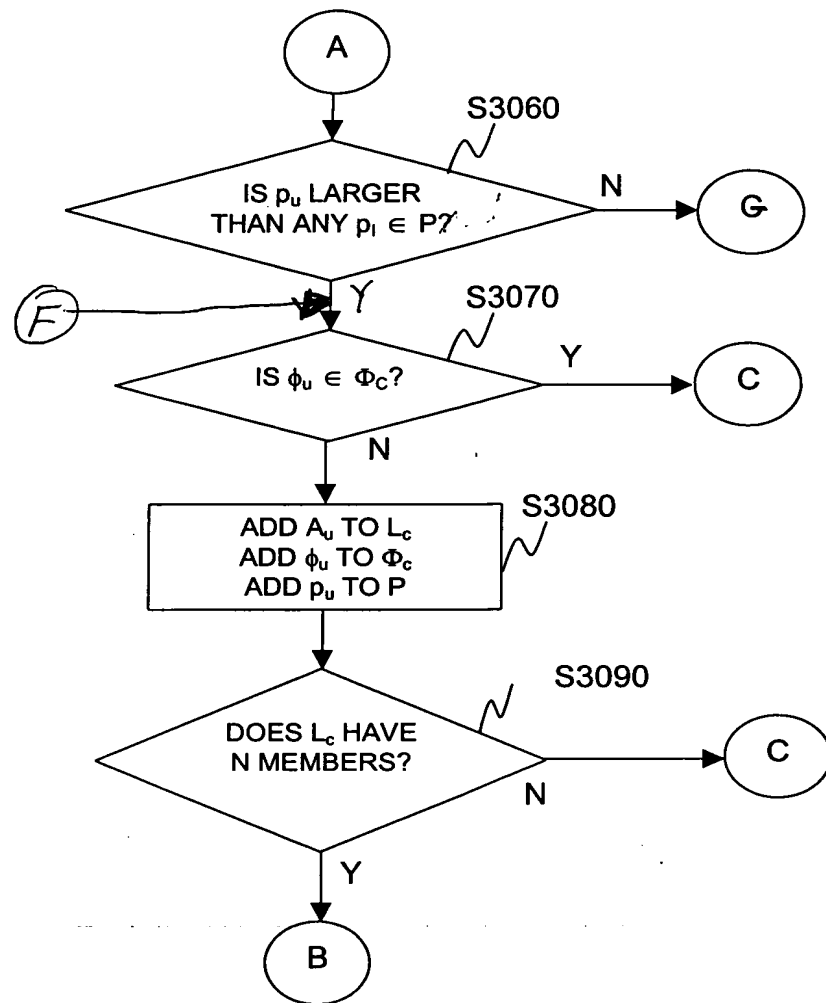


FIGURE 17
~~19~~ (CONT)

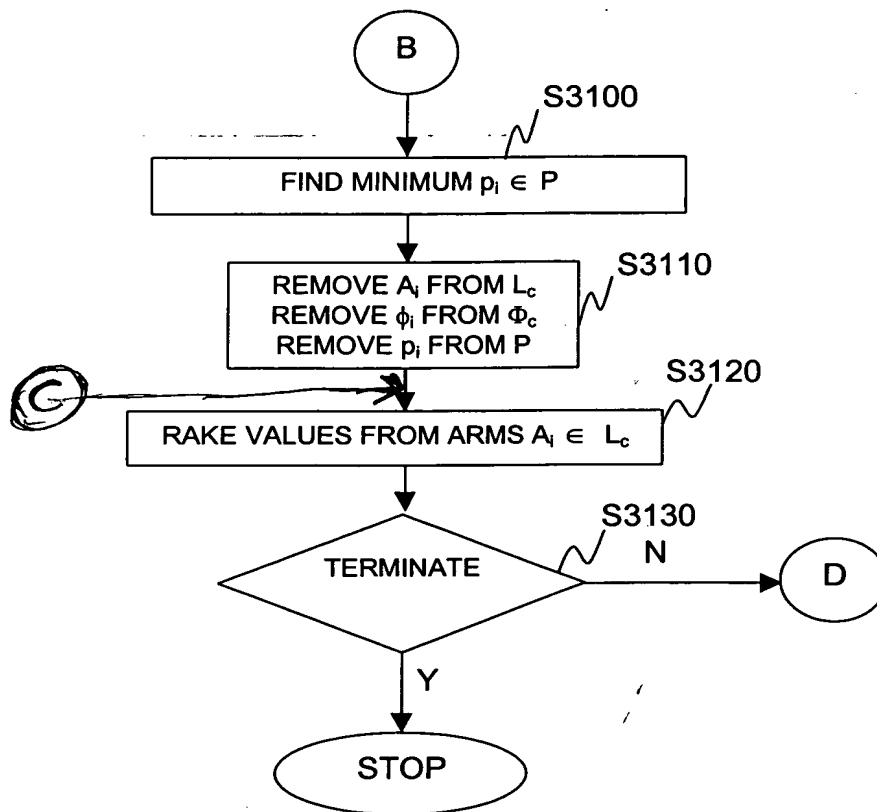


FIGURE 17 (CONT)

